Previous references.

1910-11
(Gen misc)

File No. 148-10

Serial Nos. 1-18

Later references.
G.M. 437-14-1403
G.M. 391-15-1641

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. 1-18

Part B. for July 1911

SUBJECT.

Grant of Patent right to Mr J.C. Johnstone for his invention of arrangement of pulleys &c---

---

1. From Messrs. de Penning & de Penning, Calcutta No. 244 dt 28-10-10
   Forward an application from James Chalmers Johnstone for leave to file a specification in respect of the above invention.
2. To the Chief Engineer of Mysore No. G. 2970 dt 14-11-10
   Forwards for report the applⁿ received with the above.
3. To the officer in charge of the State Huzur Dy. No. G. 2971 dt 14-11-10
   Forwards Rs. 10/- being the application fee received with Sl. 1
4. From the Asst Comptr in charge of the State Huzur Treasury No. 131 dt 16-11-10
   Acknowledges receipt of Rs. 10/- forwarded with the above.
5. From Messrs. de Penning & de Penning Letter dt 20-1-11.
   Regret that the documents forwarded with Sl. 1 may be acknowledged & remit Rs. 10/- towards the applⁿ fee with the intimation that if the applⁿ in this case shd have been already received the present remittance may be held over to their credit.

G.R. S. 58

6. To Messrs. DePenning & DePenning No. 4502 of 28-1-11.
State that the application is under the consideration of Govt and requests to be furnished in the meanwhile with a copy of the order passed by the Govt of India on a similar application if any made to that Govt and states that as the applⁿ fee has already been received in this office, the present remittance will be held over to their credit as desired.

7. From Messrs. DePenning & DePenning. Letter of 10-4-11.
In reply to the above state that no applⁿ has been made to the Govt of India.

8. From the Chief Engineer No. 3422 of 24-4-11.
With reference to 2l. 3 states that there seems to be no objection to the request of the applicant being complied with.

9. To James Chalmers Johnstone No. G.6429 of 3-5-11
Authorizes him to file a specification of the invention

10. To Messrs. DePenning DePenning, Calcutta No. G.6430 of 3 5/11
Forwards the above.

11. From do — — — do — — No. 1123 15-5-11
Forward 4 copies of the specification together with Rs. 30/- being the fee for filing

12. To the Compiler, Mysore Gazette. No. G. 7101 of 5-6-11
Notifies the filing of the Specification

13. To Messrs. DePenning DePenning Calcutta No. G.7102 of 5 6/11
Forwards copy of the above & returns Sl. 5 with the certificate.

14. To the Supt Govt Museum, State Geologist & Chief Engineer.
No. G.7103-5 of 5-6-11. Forwards for record copy of the Specifn

15. To the Dy Treasury Supt Bangalore. No. G. 7106 of 5-6-11.
Forwards Rs. 30/- received with Sl. 11 & requests acknt

16. From the State Geologist No. 2463 of 8-6-11 } Acknowledge
17. " " Supt Govt Museum " 277 of 14-6-11 } receipt of the
" " " Chief Engineer " 3753 of 3-7-11 } specification
sent with
Sl. 14

G.R.S. 11] 1909-11.

GENERAL AND REVENUE SECRETARIAT

(Gen. mis:)

NOTES.

Reg No 20 of 1910-11

File No. 148 of 1910-11

FILE HEADING.

Application from James Chalmers Johnstone, Sawyer of No 65, Eleventh Avenue, Boksburg, North, Transvaal, in respect of his invention for "Improvements in pulleys or idlers for conveyer belts, also applicable for other purposes."

From

Messrs de Penning & de Penning, Patent Agents, Calcutta.

No. 244 Dated 28. 10. 10 Received 1. 11. 10.

Diary No. 1954	Enclos.	Spare Copies	Serial No. 1

BRIEF ABSTRACT OF LETTER.

Forward the application from James Chalmers Johnstone for leave to file a specification in respect of the above invention

NOTES AND ORDERS.

With the above a Power-of-Attorney in favor of Messrs de Penning & de Penning on 5 Rs Mysore Stamp paper, and also the usual application fees have been received.

The applicant says that a patent has been obtained in the United Kingdom.

NOTES—First sheet.

GPB—15,000—24-4-09

G. R. S. 12]
General and Revenue Secretariat.

Gen File No. 148 of 1910-11

Serial No.

3 The usual drafts are subd.

GA 7.11.10 VS. 4 June 8/11/10

2. To the Chief Engineer of Mys
No G. 2970. d. 14.11.10.
Fds for report under sec 6, cl (2) of the Mysore Inventions & Des Regulation XI of 1894, the applⁿ ref above.

3. To the officers in ch. of the State Hy Treasury
No. G. 2971. d. 14.11.10.
Fds Rs 10/-, being the applicat fee received on the 1st Oct 1910 from messrs. De Penning & De Penning Patent Agents, Calcutta, for lear file a specifⁿ — in respect of the inv. refd to in sl 1.

4 From the Assistant Comptr in charge of the State Hy
No. 136 dated 16th November 1910.
Acknowledges the receipt of the sum of Rs 10/- with the above.

This may be filed and the Chief Engineer's repo the applⁿ may be awaited

Subd GA(99) 16.11.10 VS-41 5 yrs 8/11/10 21.11.10

NOTE.—Contn. sheet.

GPB.—55,000—27-4-09

Serial No.	
5	From Messrs De Penning & De Penning - to Lette 3, 20-1-11. Requests that the documents forwarded with sl. 1 may be acknowledged and remits Rs 10 towards the application fee with the intimation that if the application in this case should have been already received the present remittance may be held over to their credit Subd. with a copy reply. 25-1-11 25-1-11
6	To Messrs De Penning & De Penning. No. G 4502 dy 28-1-11 States that the applⁿ is under the consideration of Govt and requests to be furnished in the meanwhile with a copy of the order passed by the Govt of India on a similar applⁿ if any made to that Govt and states that as the applⁿ fee has already been received in this office, the present remittance will be held over to their credit as desired The sum of Rs 10/- received by Money order on 23-1-11 is kept in deposit 31-1-11 Sd/- 31/1 MM-13 31-1-11 To Sec V
7	From Messrs De Penning & De Penning Lette 3 10-4-11 In reply to the above state that no applⁿ has been made to the Govt of India

NOTE--Contn. sheet.

G. R. S. 12]
General and Revenue Secretariat.

C. In File No. 148 of 1910-11 (4)

Serial No.	
	May the Chief Engr be reminded? Draft put up
	4562/1890. VS (125) 15.4.11 Issue No 15/4/11
	Reminder issued: No G. 6082 dt 20.4.11.
8.	From the Chief Engineer No 3422 dt 24.4 With refce to 8 & 3 states that there seems no objection to the request of the applicant being complied with.
	Subn. for orders with dft granting leave VS (125) 27.4.11 VS. 4/
	Issue No 28/4/11
9	To James Chalmers Johnstone. No G 6429 dt 3.5.11
	Noted in Regr. Authorizes him to file a specn of the invent
Issue 10	To Messrs DePenning DePenning, Calcutta. No G 6431
	Forwards the above.
11	From — do — No 112 dt 15.5.11. Forwards 4 copies of the specification together with No 30 for the fee for filing
	Noted in regr. 4 dfts submd. The draft drawings require attestation
	VS 29.5.11. Approved No 30/5/11
12	To the Compiler, Mysore Gazette. No G 7101 dt 5.6
	Notifies the filing of the specn
13	To Messrs de Lemaine DePenning, Calcutta. No G 7102
	Forwards copy of the above & returns Reqn with the

Note—Contn. sheet.

Serial No.	
14	To the Supdt, Govt Museum, State Geologist & Chief Engr. No. Cs 7103-5 Dt. 6. 11. Forwards a copy of the specifn for record.
15	To the D.C. Hry Deptt, Bangalore. No. Cs 7106 Dt 5-6-11 Forwards Rs 30/- rec'd with Rr. 11 and requests acknowledgment.
16.	From the State Geologist no 2463 dt 9.6.11
17	" " Supdt Govt museum no 277 dt 14.6.11 } Acknowldg receipt of the specifcatn sent with sl 14.
18	From ~~the Chief Engineer~~. no 5953 dt 3.7.11 — do — ~~The cctt from the Chief Engineer may be awaited.~~ The papers may be recorded.

Vs (12r) Mrs.
4.7.11

7.11

NOTE—Contn. sheet.

GPB—50.000—18-5-08

GA.

19 Watkins Lane, Howrah.
28th October 1910.

No. 244.

D. 1954

(1)

5

Gm 148 of 1910-
Fl 1

To The Secretary to the Government of
His Highness the Maharaja of Mysore
General & Revenue Departments
Bangalore.

Sir

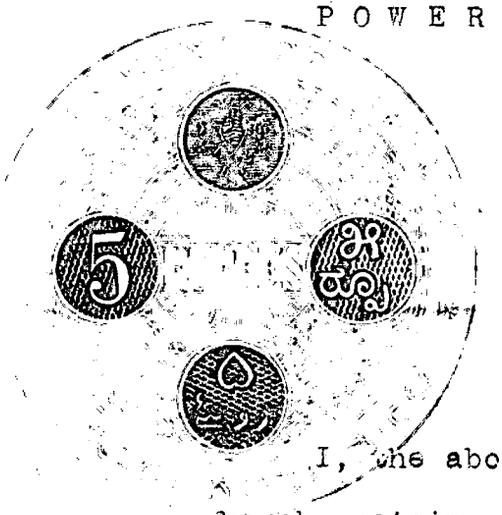
We have the honour to forward herewith an Application from James Chalmers Johnstone, Sawyer, of 65 Eleventh avenue, Boksburg North, Transvaal for leave to file a Specification under Part I of the Mysore Inventions & Designs Regulation 1894 for "Improvements in pulleys or idlers for conveyor belts also applicable for other purposes"

We also forward the fee thereon of Rupees ten and shall feel obliged by the Order passed thereon being sent to us in due course.

We have the honour to be
Sir
Your most obedient servants.
DePenning & DePenning.
Patent Agents

DEPENNING & DEPENNING
PATENT AGENTS
CALCUTTA.

POWER OF ATTORNEY. (?)



In the matter of the Inventions and Designs Regulation, 1894, of the Government of Mysore and in the matter of James Chalmers Johnstone, Sawyer of No. 65 Eleventh Avenue, Boksburg North, Transvaal, an Inventor.

I, the abovenamed JAMES CHALMERS JOHNSTONE, do hereby retain, constitute and appoint Mr. Lionel Alfred DeJenning & Harold Augustus DeJenning both of Messrs DeJenning & DeJenning, Patent Agents, Calcutta. as my Agents and Attorneys to apply for and obtain from the Government of Mysore and keep in force an Exclusive Privilege or Letters Patent for "Improvements in pulleys or idlers for conveyor belts, also applicable for other purposes"; and I authorize them or either of them to sign my name to such papers and writings and do such acts regarding the same, including the appointment of a substitute or substitutes, as may be necessary or expedient.

Dated this 24th day of September 1910.

Signed, Sealed and Delivered at Johannesburg, Transvaal in the presence of:- James Chalmers Johnstone

Charles Doendale
Patent Agent
Sto. Cleo Buildings
Loveday Street
Johannesburg,
Transvaal.

Maud Pope
Typist
Steytlers Building
Loveday Street
Johannesburg.

Gm. 48 of 1920.

A P P L I C A T I O N.

TO THE DEWAN OF MYSORE.

The Application of JAMES CHALMERS JOHNSTONE, Sawyer, of No. 65 Eleventh Avenue, Boksburg North, Transvaal, for leave to file a Specification under Part 1 of the Mysore Inventions and Designs Regulation, 1894.

1. The Applicant has obtained a Patent in the United Kingdom, No. 14,412, dated and sealed as of the Nineteenth day of June, 1909, and actually sealed on the twenty-first day of April, 1910, for Improvements in pulleys or idlers for conveyor belts, also applicable for other purposes.

2. To the best of the information and belief of the Applicant, the Invention is new within the meaning of Part 1 of the Mysore Inventions and Designs Regulation, 1894, and no circumstance exists which, if the Applicant is authorized to file a Specification and files it in accordance with that Part, will disentitle him to an Exclusive Privilege thereunder in respect of the Invention.

3. The following is a description of the Invention:-

ng & DePenning
tent Agents
Calcutta

(4)

This invention has been primarily designed for use in the pulleys or idlers employed with conveyor belts.

Such pulleys or idlers are sometimes constructed of concave sections in the plane of the axis or of smaller diameter at the centre and gradually increasing diameter towards each end; this in order to cause the conveyor belts to assume a concave or trough shape in cross-section to receive and transport the load.

This construction, owing to the variable peripheral speed of the pulley or idler, has resulted in excessive wear on the conveyor belt, as well as a loss of power.

Such pulleys or idlers have also been constructed of three members or sections, a horizontal, central or intermediate member and two side members, whose axes have been inclined to the axis of the said intermediate member; said side members being used for imparting to the belt the concave or trough shape.

The last described arrangement has necessitated more or less complex construction of the brackets and bearings for the several members or sections of the pulley.

The object of my invention is to construct a pulley in a simple and efficient manner in which the objectionable feature of variable peripheral speed will be practically eliminated.

The invention may be adapted in the construction of other pulleys or rollers of varying diameter in which it is necessary or desirable to eliminate the variable peripheral speed.

The invention will now be more fully described by aid of the accompanying drawing, wherein I illustrate it

applied in the construction of an idler suitable for conveyor belts.

The drawing shows the idler in part sectional elevation.

In the drawing, 1 represents a stationary tubular spindle for rotatably supporting the several sections of the idler.

The spindle 1 is carried by the ordinary framework comprising the stringers 2, decking 3, packing pieces 4, (which immediately support the spindle) and the caps 5.

The several portions 2,3,4 and 5 of the framework may, as shewn, be made of wood or any other suitable material or materials.

The hole extending from end to end of the tubular spindle 1 is shewn utilized for introducing lubricant to the various rotatable portions or sections of the idler hereinafter referred to; and for this purpose lubricators 6 may be provided at either or both ends of said tubular spindle 1. 7 represent transverse holes in the tube through which the lubricant passes to the interiors of the hubs of each of the idler sections.

The idler is shewn built up of a central, cylindrical section comprising flanged end parts 8, a hollow cylindrical part 9 secured to the flanges 10 of said end parts 8, and a plurality of transverse sections or rings 11,12,13 arranged at each side of the central section, to form when assembled on the spindle 1 the concave or trough shape.

Each of the three end portions 11,12,13, as also the centrall, cylindrical section of the idler are capable of rotating independently around the spindle. The several rings or sections 11,12,13 are curved or inclined peripherally so that when all the sections

(6)

are assembled the desired concave peripheral configuration is imparted to the complete idler. As shewn, the sections or rings 11 may be made wider across the periphery than the sections 12,13; or all the sections 11,12,13 may be made the same width. When the several sections are assembled on the spindle then the adjacent ends of the hub members of the several sections abut so as to prevent any undesirable movement of the sections lengthwise of spindle 1. If desired, the peripheral portions of the several sections 11,12,13 may be made approximately the same width as their hub portions. The edges of the several sections may be rounded, as indicated at 14, to prevent chafing of the conveyor belt, of which 15 represents the overlay runnin upon the several sections of the idler, and 16 the under lay. The overlay of the belt 15 is shewn in the position it is caused to assume to convey the load.

17 represent collars fixed upon the tubular shaft 1 at the outside of the bosses of the two outside sections 13.

H.D.C. 18 represent the bearings usually fixed to the bottom of the stringers 2 for the spindle 19 upon which is fixed the sectional, cylindrical return roller 20 for the underlay 16. 21 are collars for maintaining spindle 19 in running position in its bearings 18.

Obviously the idler may be built up of more or less than the three sections at each end of the central sectior The sections or rings comprising the ends of the idler being able to move independently they can rotate on the spindle 1 at different speeds, thereby preventing ex- cessive wear of the belt.

If desired ball or other suitable bearings can be provided between the contiguous ends of the hub members of the several sections.

Having now particularly described and ascertained the nature of my said Invention and in what manner the same is to be performed, I declare that what I claim is:-

1. A pulley or idler such as described comprising a plurality of transverse sections of varying diameters adapted to rotate upon a common spindle at different speeds, substantially as described.

2. A pulley or idler as claimed in the preceding claim comprising a central, cylindrical or parallel section and a plurality of peripherally curved or inclined sections arranged at each end of said central section, the central section and the several end sections being adapted to rotate independently upon a common spindle, substantially as described and shewn.

3. In a pulley or idler as claimed in claim 1 or 2, the means for lubricating the several sections consisting in the employment of a tubular spindle and the provision of transverse holes in said spindle through which the lubricant can pass to the interiors of the hub members of the several sections, and means for introducing the lubricant into the spindle, substantially as described and shewn.

(8)

4. A pulley or idler such as described and as claimed in claim 1 or 2 in which the edges of the several sections are rounded to prevent chafing of the belt, substantially as described and shewn.

5. An idler or pulley of the nature specified constructed substantially as hereinbefore described in connection with and as illustrated in the annexed drawing.

4. The Applicant, therefore, applies for leave to file a Specification of the Invention pursuant to Part 1 of the Mysore Inventions and Designs Regulation, 1894.

James Chalmers Johnstone

I, the Applicant abovenamed, do declare that the facts stated in this Application are true to my knowledge, except as to matters stated on information and belief and as to those matters I believe them to be true.

Dated this 24th day of September 1910.

James Chalmers Johnstone

10

10 -0-

vide our letter of
date forwarding
Application of
D.C. Johnstone.

DTD

MG
1/11/10

2 Letts

G.R.S. 29A]

190 (11)

From

The Secy. to the Govt. of His Highness
The Maharaja of Mysore,
Genl. and Rev. Dept.

To

The Chief Engineer of Mysore

Dated

Despatched 1 24th Nov 1910

Received

General No. G 2966

No. GM 4-10-2

ENCLOSURE No. 1.

Has the honor to forward herewith for report under Sec 6 cl (2) of the Mysore Inventions and Designs Regulation XI of 1894, an application received from messrs de Penning & de Penning, Patent Agents, Calcutta, for leave to file a specification in respect of an invention for "Improvemen in pulleys or idlers for conveyor belts, also applicable for other purposes," by James Chalmers Johnstone, Sawyer of No. 65, Eleven Avenue, Boksburg, North, Transvaal;

2. The appln may be returned alo with the rept at an early date.

By order,

8/11/10

For Secy

GPB—10,000—9-4-06.

cl
10/11

Money sender upon
ml

2 Enl.

G.R.S. 29A]

190 (12)

From

The Secy. to the Govt. of His Highness
The Maharaja of Mysore,
Genl. and Rev. Dept.

To The Officer in charge of the
State Huzur Treasury.

Dated

Despatched 14.11.10

Received

General No. G 2967

No. GM-4-10-

ENCLOSURE No. Rs 10/-

Has the honor to forward herewith the sum of Rs 10 (Ten Rupees on the 7th Oct.) being the application fee received from messrs de Penning & de Penning Patent Agents, Calcutta, for leave to file a specification in respect of an invention for "Improvements in pulleys a idlers for Conveyor belts & also applicable for other purposes" by James Chalmers Johnstone, Sawyer, of No. 65, Eleventh Avenue, Boksburg, North, Transvaal. and to request the favor of an acknowledgment.

By order,

for Secretary

14.11.10

GPP—10,000—9-4-06.

G.R.S. 13]

Routine Notes.

[To be used only for notes, requisitions, etc., not intended for permanent record.]

Ver 1911 Rs. 1 QA 4-C5

D 2193/5

No. 156

Rs. 10/-

Received from Messrs De Penning & De Penning, Patent Agents Calcutta through the Secretary to the Government of His Highness the Maharaja of Mysore, General and Revenue Departments application for filing a Specification the sum of Rupees Ten only, being the fee in respect of an invention for "Improvements in Pulleys or Rollers for Conveyor belts, also applicable for other purposes" and entitled this day. Vide, Secretary's No. G 2971/Gen/148-10-3 dated 14 November 1910.

H. H. The Maharaja's State Huzur Treasury,
Bangalore, the 16 November 1910

~~By Order,~~

Assistant Comptroller in charge,
~~Treasury Officer~~, State Huzur Treasury.

Exd.

Hd. Acctt. ~~Bakshi.~~ Treasurer

N. B.—Should routine notes be written on small slips, the notes must be copied, or slips pasted on this form.

GPB—35,000—21-4-09

ESTABLISHED 1856.
De Penning & De Penning.
PATENT AGENTS.
F. M. Chart., Inst., P. A.
LONDON.
F. M. Australasian Inst., P. A.
MELBOURNE.

TELEGRAPHIC ADDRESS:
Depend, CALCUTTA.

19, Watkins Lane, Howrah,
Calcutta

D 3199
9

20th January 1911

G.M/48.10.5

To.

The Secretary

To H.H.the Maharajah of Mysore

General & Revenue Department

Sir,

re James Chambers Johnstone

With reference to our letter No 244 dated 28th October 1910 we have the honour to request that an acknowledgement of the receipt of documents consisting of an application for a grant of exclusive privilege in Mysore in this gentlemen's name for "Improvements in pulleys or idlers for conveyor belts, also applicable to other purposes" may be given us, as also to request that the order granting leave to file the specification of the invention may be sent to us as issued.

We forward herewith Rs 10/- by Money Order, as we connot trace receipt of original order for the same, in the event of your having already received the application fee, please hold the same over to our credit giving us the necessary information.

We have the honour to be

Sir

Your most obedient servants

De Penning & De Penning

Ltr 15.11.11 recd 20/11/11

COUPON TO BE RETAINED BY PAYEE.

The Remitter may write here any communication to the Payee, and he is recommended to add his name and address for the information of the Payee.

Amount of Order Rs. 10 As. -

Name of remitter D&P & D&P

on a/c of Patent Fr. 10/-
Appl. Johnstone
letter dt 20/1/11

23/1/11

(15)

To Bar K

23/1/11

To be held in deposit to the credit of Messrs De Penning & De Penning - Write thereto the note to the file will be sent to the earliest date for note after issue of the proposed rules -

26/1/11

Generally Much Correspondence kept in the proper file so as to facilitate References. Br K will kindly do the needful in this instance also

26/1/11

to Vol.

5199/26-1-

G.R.S. 26]

for **File No.** 148-10

Serial No. 6

*Diary No. of letter replied to*_____

No. 4502 (16)

General and Revenue Secretariat

( )

, *the* 19 .

To

Messrs Dreschmann & Deenning,

19. Watkins Lane, Howrah, Calcutta.

Date of issue 28th Jan 1914

Signed by M. B. Ramaswamayya

Gentlemen,

In reply to your letter of the 20th inst, I am directed to state that the application of Mr. James Chalmers Johnstone for leave to file a specification of his invention for "Improvements in pulleys or idlers for conveyor belts, also applicable for other purposes" is under the consideration of Govt. and that the orders passed

over.

SUBJECT.

MSR

27.1.

herein will be communicated to you in due course. In the meantime I am to enquire whether a similar application has been made to the Govt. of India and if so, to request to be ~~forwarded~~ furnished with a copy of the order passed by that Government.

2) ~~With reference~~ As the application fee of Rs 10 due in this case has already been received here, the present remittance of Rs 10 will be ~~kept~~ as desired in para 2 of your letter ... reply, be held in credit.

I have &c.

for 25.1.19.

Secretary.

Whitehall S.W. 254-W-1 15 27/4/19

List of enclosures,

Copied by

Examined by

GPB—20,000—12-6-10

19 Watkins Lane, Howrah
10th April 1911.

V
18/4 Rr.

No. 84.

D4385 / G — GL 148-10-7

(17)

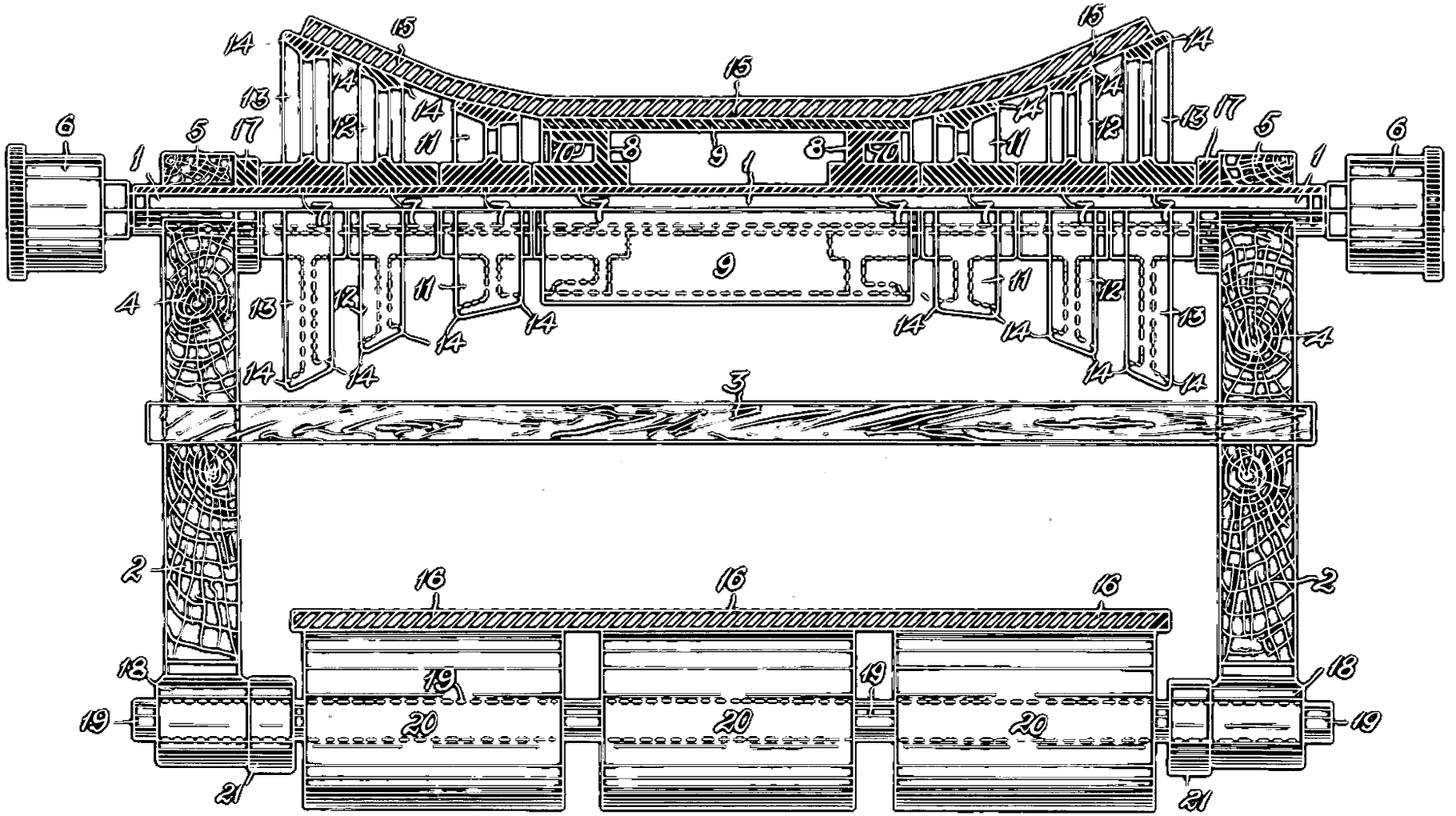
To The Secretary to the Government of
H. H The Maharaja of Mysore
General & Revenue Departments.

Sir

With reference to your letter No G 4502 / GM. 148-10-6 dated 28th January 1911, we have the honour to state that no application for a Patent in respect of Mr. James Chalmers Johnstone invention for "Improvements in pulleys or idlers for conveyor belts, also applies for other purposes" has been ~~be~~ made to the Government of India.

We have the honour to be
Sir
Your most obedient Servants
De Penning & De Penning
Patent Agents

DEPENNING & DEPENNING
PATENT AGENTS
CALCUTTA.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SECRETARY'S OFFICE,
RECD 10
12 DEC 1910
DEPT.

20

A P P L I C A T I O N.

TO THE DEWAN OF MYSORE.

The Application of JAMES CHALMERS JOHNSTONE, Sawyer, of No. 65 Eleventh Avenue, Boksburg North, Transvaal, for leave to file a Specification under Part 1 of the Mysore Inventions and Designs Regulation, 1894.

1. The Applicant has obtained a Patent in the United Kingdom, No. 14,412, dated and sealed as of the Nineteenth day of June, 1909, and actually sealed on the twenty-first day of April, 1910, for Improvements in pulleys or idlers for conveyor belts, also applicable for other purposes.

2. To the best of the information and belief of the Applicant, the Invention is new within the meaning of Part 1 of the Mysore Inventions and Designs Regulation, 1894, and no circumstance exists which, if the Applicant is authorized to file a Specification and files it in accordance with that Part, will disentitle him to an Exclusive Privilege thereunder in respect of the Invention.

3. The following is a description of the Invention:-

(4)

This invention has been primarily designed for use in the pulleys or idlers employed with conveyor belts.

Such pulleys or idlers are sometimes constructed of concave sections in the plane of the axis or of smaller diameter at the centre and gradually increasing diameter towards each end; this in order to cause the conveyor belts to assume a concave or trough shape in cross-section to receive and transport the load.

This construction, owing to the variable peripheral speed of the pulley or idler, has resulted in excessive wear on the conveyor belt, as well as a loss of power.

Such pulleys or idlers have also been constructed of three members or sections, a horizontal, central or intermediate member and two side members, whose axes have been inclined to the axis of the said intermediate member; said side members being used for imparting to the belt the concave or trough shape.

The last described arrangement has necessitated more or less complex construction of the brackets and bearings for the several members or sections of the pulley

The object of my invention is to construct a pulley in a simple and efficient manner in which the objectionable feature of variable peripheral speed will be practically eliminated.

The invention may be adapted in the construction of other pulleys or rollers of varying diameter in which it is necessary or desirable to eliminate the variable peripheral speed.

The invention will now be more fully described by aid of the accompanying drawing, wherein I illustrate it

applied in the construction of an idler suitable for conveyor belts.

The drawing shows the idler in part sectional elevation.

In the drawing, 1 represents a stationary tubular spindle for rotatably supporting the several sections of the idler.

The spindle 1 is carried by the ordinary framework comprising the stringers 2, decking 3, packing pieces 4, (which immediately support the spindle) and the caps 5.

The several portions 2,3,4 and 5 of the framework may, as shewn, be made of wood or any other suitable material or materials.

The hole extending from end to end of the tubular spindle 1 is shewn utilized for introducing lubricant to the various rotatable portions or sections of the idler hereinafter referred to; and for this purpose lubricators 6 may be provided at either or both ends of said tubular spindle 1. 7 represent transverse holes in the tube through which the lubricant passes to the interiors of the hubs of each of the idler sections.

The idler is shewn built up of a central, cylindri section comprising flanged end parts 8, a hollow cylindr cal part 9 secured to the flanges 10 of said end parts 8, and a plurality of transverse sections or rings 11,12,13 arranged at each side of the central section, to form when assembled on the spindle 1 the concave or trough shape.

Each of the three end portions 11,12,13, as also the centrall, cylindrical section of the idler are capable of rotating independently around the spindle. The several rings or sections 11,12,13 are curved or inclined peripherally so that when all the sections

are assembled the desired concave peripheral configuration is imparted to the complete idler. As shown, the sections or rings 11 may be made wider across the periphery than the sections 12,13; or all the sections 11,12,13 may be made the same width. When the several sections are assembled on the spindle then the adjacent ends of the hub members of the several sections abut so as to prevent any undesirable movement of the sections lengthwise of spindle 1. If desired, the peripheral portions of the several sections 11,12,13 may be made approximately the same width as their hub portions. The edges of the several sections may be rounded, as indicated at 14, to prevent chafing of the conveyor belt, of which 15 represents the overlay running upon the several sections of the idler, and 16 the underlay. The overlay of the belt 15 is shown in the position it is caused to assume to convey the load.

17 represent collars fixed upon the tubular shaft 1 at the outside of the bosses of the two outside sections 13.

H.D.P. 18 represent the bearings usually fixed to the bottom of the stringers 2 for the spindle 19 upon which is fixed the sectional, cylindrical return roller 20 for the underlay 16. 21 are collars for maintaining spindle 19 in running position in its bearings 18.

Obviously the idler may be built up of more or less than the three sections at each end of the central section. The sections or rings comprising the ends of the idler being able to move independently they can rotate on the spindle 1 at different speeds, thereby preventing excessive wear of the belt.

If desired ball or other suitable bearings can be provided between the contiguous ends of the hub members of the several sections.

Having now particularly described and ascertained the nature of my said Invention and in what manner the same is to be performed, I declare that what I claim is:-

1. A pulley or idler such as described comprising a plurality of transverse sections of varying diameters adapted to rotate upon a common spindle at different speeds, substantially as described.

2. A pulley or idler as claimed in the preceding claim comprising a central, cylindrical or parallel section and a plurality of peripherally curved or inclined sections arranged at each end of said central section, the central section and the several end sections being adapted to rotate independently upon a common spindle, substantially as described and shewn.

3. In a pulley or idler as claimed in claim 1 or 2, the means for lubricating the several sections consisting in the employment of a tubular spindle and the provision of transverse holes in said spindle through which the lubricant can pass to the interiors of the hub members of the several sections, and means for introducing the lubricant into the spindle, substantially as described and shewn.

(25)

4. A pulley or idler such as described and as claimed in claim 1 or 2 in which the edges of the several sections are rounded to prevent chafing of the belt, substantially as described and shewn.

5. An idler or pulley of the nature specified constructed substantially as hereinbefore described in connection with and as illustrated in the annexed drawing.

4. The Applicant, therefore, applies for leave to file a Specification of the Invention pursuant to Part 1 of the Mysore Inventions and Designs Regulation, 1894.

James Chalmers Johnstone

I, the Applicant abovenamed, do declare that the facts stated in this Application are true to my knowledge, except as to matters stated on information and belief and as to those matters I believe them to be true.

Dated this 24th day of September 1910.

James Chalmers Johnstone

4562
9

No. 3422/One Specification with plan. MYSORE P. W. DEPARTMENT,

CENTRAL OFFICE.

Bangalore.....24th April.....*19*11

From

Gn 148-10-8

M. VISVESVARAYA, ESQ., M.I.C.E.,

Chief Engineer of Mysore,

Bangalore.

To

C.S.Balasundaram Iyer, Esq., B.A.,

Offg. Secretary to the Government of

His Highness the Maharaja of Mysore,

General and Revenue Departments.

SIR,

With reference to your No. 2970/G.M. 148-10-8 14th November 1910, forwarding for report, an applica received from Messrs. De Penning and De Penning Patent Agents, Calcutta, for leave to file a specification o invention for "Improvements in pulleys or idlers for c veyor belts also applicable for other purposes" by Jame Chalmers Johnstone, also subsequent reminder No. G.60[illegible] the 20th instant, I have the honour to inform you that seems to be no objection to Government complying with t application.

2. Enclosures are herewith returned.

I have the honour to

Sir,

Your most obedient serv

Deputy Chief Engineer,

Mysore P.W.D

MYSORE P. W. DEPARTMENT.

No. 3422.

From

THE CHIEF ENGINEER OF MYSORE,

Bangalore.

To

The Secretary to Govt.
Genl & Rev Depts,
Bangalore.

Dated Bangalore,

Despatched

Enclosure No. one Specification with plan.

SUBJECT.

Re: an application for leave to file a specification of an invention for "Improvements in pulleys or idlers for conveyor belts, also applicable for other purposes" by James Chalmers. Johnstone.

ab

no 6 64 29
pm 148-10-9

GOVERNMENT OF MYSORE

General Department.

Register No. 2 **of 190-11** 3rd May

Bangalore, the ~~April~~ *1911.*

WHEREAS an application, dated the 24th Sept. 1910 and received on the 1st Nov. 1910, has been submitted under Section 5 of the Mysore Inventions and Designs Regulation, 1894, by James Chalmers, Johnstone, Sawyer of no 65 Eleventh Avenue, Boksburg north, Transvaal

(hereinafter referred to as "the applicant") for leave to file a specification of an invention for "Improvements in pulleys or idlers for conveyor belts also applicable for other purposes".

And whereas the applicant has duly complied with all the requirements of Section 5 of the said Regulation;

The Government of Mysore are pleased, under Section 6 of the said Regulation, to authorize the applicant to file a specification of the said invention in accordance with the provisions of the said Regulation.

ORDERED, that the applicant be, and he is hereby, informed accordingly.

By Order of the Government of Mysore,

28/4/11

Secretary to the Govt. of Mysore,
Gen. and Rev. Depts.

Certified that the fees prescribed in the fourth schedule to the Mysore Inventions and Designs Regulation, 1894, in respect of the application for leave to file the said specification and of the filing thereof have been paid by the applicant, and that the specification hereinbefore described has been duly filed in accordance with the provisions of Section 8 of the said Regulation on this the fifteen 15 day of May 1911.

30/5/11

Secretary to the Govt. of Mysore,
Gen. and Rev. Depts.

(Section 8 of the Inventions and Designs Regulation, 1894.)

8. (1) If within six months from the date of an order under Section 6, Sub-Section (1), or within such further time, not exceeding three months, as the Government of Mysore, in its discretion, may, on cause shown to its satisfaction and on payment of the fee prescribed in that behalf in the fourth schedule, see fit to allow, the applicant causes a specification of his invention to be filed in manner by this Part required, and the fee prescribed in the fourth schedule in respect of the filing of the specification to be paid, the applicant shall, subject to the other provisions of this Part, be entitled to the exclusive privilege of making, selling and using the invention in the Territories of Mysore, and of authorizing others so to do, for a term of fourteen years from the date of the filing of the specification.

(2) But an exclusive privilege in respect of an invention of a new manufacture shall, notwithstanding anything in Sub-Section (1), cease, if the inventor fails to pay, within the time limited in that behalf by the fourth schedule, any fee prescribed in that schedule in respect of the continuance of the privilege.

(3) If, nevertheless, in any case, by accident, mistake, or inadvertence, an inventor fails to pay any such fee within the time so limited, he may apply to the Government of Mysore for an enlargement of the time for making the payment.

(4) Thereupon the Government of Mysore may enlarge the time accordingly, on payment of the fee prescribed in that behalf in the fourth schedule, and subject to the following conditions, namely :—

(*a*) the time for making a payment shall not in any case be enlarged for more than three months ; and

(*b*) if any suit is instituted in respect of an infringement of the exclusive privilege committed after a failure to make a payment within the time limited for the making thereof and before the enlargement of that time, the Court disposing of the suit may, if it thinks fit, refuse to award or give any damages in respect of the infringement.

+502
27-4-11

G.R.S. 26]

Gm File No. 148-10

Serial No. X 10

(29)

No. G 64 30 2 Encl

*Diary No. of letter replied to*_____

General and Revenue Secretariat

( )

, the 19 .

Date of issue 3 . 5 - 11

Signed by Sd/ B Ramaswamaiya

To

Messrs De Penning De Penning

19. Watkin's Lane,

Howrah. Calcutta

Gentlemen,

With refce. to the correspondence ending with your letter no 84 G 10. 4. 19 on the subject of the applⁿ. of James Chalmers Johnstone of Transvaal for leave to file a specification of his invention for "Improvements in pulleys or idlers for conveyor bel

over.

SUBJECT.

also applicable for other purposes", I am directed to forward herewith order no G 864 29/Gen 148-10-gg 3rd May 1911, granting the applicant the leave asked for.

I have &c.

11/28/4/11

2 Offr Secy

Copied by

Examined by

GPB—20,000—12-8-10

(21)

COUPON. *The remitter may write here any communication to the payee.*

Rs. 30 As. —

D. Penning & D. Penning
Remitter.

Fee due on the Specification
of L. C. Johnstone Mysore Patent No 2 of 1910-11
(Please see our Letter No 112 of 16/6/11)

Rs. 30/- Paid
11/1
1915

Z. B. & V.

11/1
1915/11

19 Watkins Lane, Howrah
15th May 1911.

No. 112.

D 4890/9

32

Gm. 148.10.11

To The Secretary to the Government of Mysore
General & Revenue Departments.

Sir

We have the honour to acknowledge receipt of your letter No G6430/Gm 148-10-10 - dated 3rd May 1911 and have the honour to forward herewith under Order No G.6429/G.M. 148-10-9 dated 3rd May 1911. the Specifications of James Chalmers Johnstone, Sawyer, of 65 Eleventh Avenue, Boxburg North, Transvaal, for "Improvements in pulley or idlers for conveyor belts also applicable for other purposes"

We also forward by Money Order the fee thereon of Rupees thirty and shall feel obliged by the certificate completing the case being sent to us in due course.

We have the honour to be
Sir
Your most obedient servants
DePenning & DePenning
Patent Agents.

DEPENNING & DEPENNING
PATENT AGENTS
CALCUTTA.

MYSORE GOVT. GEN. & REV. SECRETARIAT,

No. G 7104 Gen. 11-8-10-17

Dated Bangalore, 5th June 190

4890/34/5

NOTIFICATION.

(PATENT.)

The following specification of an invention has been filed in accordance with Sections 8, 9, 10 and 11 of Regulation XI of 1894 (The Inventions and Designs Regulations) and is open to inspection at the Mysore Government Secretariat on application to the Secretary to the Government of His Highness the Maharaja of Mysore, General and Revenue Departments, and on payment of a fee of one Rupee.

By James Chalmers Johnstone, Sawyer of no 65 Eleventh Avenue, Boksburg North, Transvaal

"Improvements in pulleys or idlers for conveyer belts also applicable for other purposes".

By Order,

30/5/11

Secretary.

To

The Compiler, *Mysore Gazette*, for publication

RKJ 1/7/11

No. C 7102 Ena 2
Fin 148-10-13

MYSORE GOVT. GEN. & REV. SECRETARIAT,

Dated Bangalore, 5th June 1911.

From

The Secretary to the Government of H. H. the Maharaja of Mysore,
General and Revenue Departments.

To

Messrs De Penning & De Penning
Patent Agents, 19 Watkins Lane
Howrah, Calcutta.

Gentlemen,

With reference to your letter dated 15. 5. 1911 I am directed to forward copy of a Notification No. C 7101/Fin 148-10-12 dated 5th June 1911 issued by this Government in regard to the invention filed by you under Regulation XI of 1894 (The Inventions and Designs Regulations.)

The order granting permission to file specification is herewith returned, with the certificate at foot, duly filled in and signed.

I have the honor to be,

Your most obedient servant,

30/5/11

Secretary.

G.R.S. 29A]

190 .

From

Secy. to the Govt. of His Highness the Maharaja of Mysore, Genl. and Rev. Dept.

To The Supdt. Govt. Museum
" State Geologist
Dated - Chief Engineer.
Despatched 5 - 6. 4
Received

General No. C 7103-5
Genl No. 148-10-14
Enclosure No. 1

Has the honor to forward herewith for record a copy of the specification of an invention for "Improvements in pulleys or idlers for conveyor belts also applicable for other purposes" filed by Mr. James Chalmers Johnstone of Transvaal - & to request the favour of an acknowledgement.

By.

30/5/11
for Secretary

G.R.S. 29A]

190

From

Secy. to the Govt. of His Highness the Maharaja of Mysore, Genl. and Rev. Dept.

To

The Dy. Comm^r.

Dated Ing. Delhi

Despatched 5. 6. 11 Bangalore

Received

General No. G 7106

Gen No. 448-10-15

Enclosure No. Rs Nuts &c.

Has the honor to forward herewith for credit a sum of Rs 30 being the fee for filing a specification of an invention for "Inserts in pulleys or idlers for conveyor belts also applicable for other purposes ~~& to request the favour of~~ by M^r. James Chalmers Johnstone and to request the favour of an acknowledgment.

Bangalore
2 30/5/11
Secy to the Govt

bns

MGCPB—20,000—16-2-05

D s-192
5

M.G.D. 13] MYSORE GEOLOGICAL DEPARTMENT.

Dated Bangalore, 9 — 6 — 1911

(37)

No. 2463. G.M 148-10-16

From

E. W. WETHERELL, Esq., A.R.C.S., F.R.P.S.L., F.G.S.,
Offg. State Geologist in Mysore.

To

C.S.Balasundaram Iyer, Esquire, B.A.,
Offg. Secretary to the Government of His Highness
the Maharaja of Mysore, Genl. & Rev. Depts.

Sir,

I have the honour to acknowledge the receipt of a copy of the specification of an invention for "Improvements in pulleys or idlers for conveyor belts also applicable for other purposes" by Mr. James Chalmers Johnstone of Transvaal, forwarded with your docket No. G.7103-5/G.M.148-10-14, dated 5th June 1911

I have the honour to be,
Sir,
Your most obedient servant,

Offg. State Geologist in Mysore.

Gn 148-10 17

No. 277

OFFICE OF THE ECONOMIC BOTANIST,
SUPERINTENDENT, MYSORE GOVERNMENT MUSEUM,
Bangalore, dated 14th June 1910.

D 5269

FROM

G. H. KRUMBIEGEL, ESQ., F.R.H.S.,
Economic Botanist,
Superintendent, Mysore Govt. Museum,
Bangalore.

To

C. S. Balasundrum Iyer Esq., B.A.,
Offg. Secretary to the Govt. of H. H.
the Maharaja of Mysore,
Genl and Rev: Department
Bangalore.

Sir,

I have the honor to acknowledge the receipt of a Copy of the Specification of a invention for "Improvements in pulleys or idlers for Conveyor belts also applicable for other purposes" filed by Mr. James Chalmers Johnston of Transvaal, forwarded with your No. G.7103-G.M.-148-10-1 dated the 5th instant.

I have the honor to be,
Sir,
Your most obedt. Servant

Economic Botanist
Supdt, Govt. Musm
Bangalore

1911

From

G. H. KRUMBIEGEL, Esq., F.R.H.S.,
Economic Botanist,
Supt., Mysore Govt. Museum,
Bangalore.

To C. S. Balasundaram Iyer by Boy
Offg. Secretary to the Govt of H.
the maharaja of mysore.
Gen & Rev. Depts.
Bangalore

Dated 14th June 1911

Despatched 15 " - "

Received

General No. 277 } 1910-11
No.

Enclosure No. 1

Acknowledging the receipt of a copy of the Specification of an invention for "Improvement in pulleys or idlers for Conveyor belts also applicable for other purposes" filed by mr. - J. C. Johnstone of Transvaal. -

GPB- 300—15 7 10

G.h 168-10-18

No. 5953

MYSORE P. W. DEPARTMENT.
CENTRAL OFFICE.

Bangalore, 3rd July 1911

From

M. VISVESVARAYA, ESQ., M.I.C.E.,
Chief Engineer of Mysore,
Bangalore.

To

The Secretary to Government,
General and Revenue Departments,
Bangalore.

Sir,

I have the honor to acknowledge the rec
of a copy of Specification of an invention
for "Improvements in pulleys or idler
for conveyor belts, also applicable for
purposes" filed by Mr. James Chalme
Johnstone of Transvaal; forwarded with
your No. G. 7103-5 / G. M 168-10-14 of the
5th June 1911.

I have the honor to be,
Sir,
your most obedient servan

H. Krishnaiengar
Offg. Deputy Chief Engineer
Mysore P. W. D

A 5-81
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191

MYSORE P W DEPARTMENT

No. 5953.

From

THE CHIEF ENGINEER OF MYSORE,

Bangalore.

To

The Secretary to Govt, Pwd and Revenue depart ments.

Dated Bangalore, 3rd July 911.

Despatched

Enclosure No.

SUBJECT.

Relerdeg receipt- Qn Apy of Specifications Plan in. vention for an Improvement in Pulleys or idlers etc